MOBILE LAUNCH PLATFORM
ENVIRONMENTAL ASSESSMENT

MISSILE DEFENSE AGENCY

AGENCY: Missile Defense Agency (MDA)

ACTION: Finding of No Significant Impact

BACKGROUND: The Missile Defense Agency (MDA) prepared an Environmental Assessment (EA) to evaluate the potential environmental impacts of activities associated with using the Mobile Launch Platform (MLP) as a platform for testing sensors, launching target missiles, and launching interceptor missiles. The EA considers the impacts of specific tests that propose to use the MLP. After reviewing and analyzing currently available data and information on existing conditions, project impacts, and measures to mitigate those impacts, the MDA has determined that the proposed action is not a Federal action that would significantly affect the quality of the human environment within the meaning of the National Environmental Policy Act (NEPA) of 1969, as amended. Therefore the preparation of an Environmental Impact Statement (EIS) would not be required and MDA is issuing a Finding of No Significant Impact (FONSI). The MDA made this determination in accordance with all applicable environmental laws.

The EA was prepared in accordance with NEPA; the Council on Environmental Quality regulations that implement NEPA (Code of Federal Regulations [CFR], Title 40, Parts 1500-1508); Department of Defense (DoD) Instruction 4715.9, *Environmental Planning and Analysis;* the applicable service regulations that implement these laws and regulations; Executive Order (E.O.) 12114, Environmental Effects Abroad of Major Federal Actions direct DoD lead agency officials to consider potential environmental impacts and consequences when authorizing or approving Federal actions.

DESCRIPTION OF THE PROPOSED ACTION: The purpose of the proposed action is to provide a mobile sea-based platform from which to more realistically test sensors (radars, telemetry, and optical systems), ballistic missile targets, and defensive missile interceptors in support of MDA's mission. MDA's mission is to develop, test, deploy, and plan for decommissioning a Ballistic Missile Defense System (BMDS) to provide a defensive capability for the United States (U.S.), its deployed forces, friends, and allies from ballistic missile threats. The proposed action would provide the MDA with the capability to conduct launches using multiple realistic target and interceptor trajectories in existing test ranges and the Broad Ocean Area (BOA). In addition, the proposed action would

allow MDA the capability to use sensors at test support positions in remote areas of the ocean by locating these sensors onboard the MLP.

The sensors that would be tested from the MLP include radars, telemetry, and optical systems. Examples of radars that could be used include: TPS-X, Mk-74, and Coherent Signal Processor radars that already exist, and the BMDS radar, being developed by the MDA. Telemetry systems could include the Transportable Telemetry System and mobile range safety systems. Mobile optical systems such as the Stabilized High-Accuracy Optical Tracking System could also be placed on the MLP. Additional sensor systems may be temporarily based on the MLP as required. The targets that would be launched from the MLP include pre-fueled and non-pre-fueled liquid and solid propellant missiles. The interceptors that would be launched from the MLP include solid propellant missiles. The MLP would be designed to operate from one or all of the following locations, Western Range, Pacific Missile Range Facility (PMRF)/Kauai Test Facility (KTF), U.S. Army Kwajalein Atoll (USAKA)/Ronald Reagan Ballistic Missile Defense Test Site (RTS), and the BOA.

Tests would consist of the launch of a target missile; tracking by land-, sea-, air-, and space-based sensors; launch of an interceptor missile; target intercept; and debris impacting in the BOA. For the purpose of this EA, a test event was defined as a target missile flight, an interceptor missile flight, an intercept of a target missile, or use of a sensor to observe a missile flight test or intercept. The EA addresses the impacts of conducting up to four test events per year using the MLP as a platform for operating sensors, launching target missiles, and launching interceptor missiles for a total of up to 20 test events between 2004 and 2009.

ALTERNATIVES TO THE PROPOSED ACTION: Two alternatives to the proposed action were considered in the EA. The first alternative would include using the MLP for the launch of all missile types (pre-fueled and non-pre-fueled liquid propellant target missiles, solid propellant target missiles, and solid propellant interceptor missiles) but not for testing sensors. The second alternative would include using the MLP to test sensors and launch pre-fueled liquid propellant missiles and solid propellant missiles but not non-pre-fueled liquid propellant missiles. Under the no action alternative, existing activities to be conducted from the MLP would continue and additional activities using the MLP would be considered on a case-by-case basis. Sensor testing and missile launches would continue from existing locations and facilities but the MDA would not have the flexibility of using the MLP as a platform to conduct testing of sensors or launches of missiles from the MLP. The potential benefits to the testing program from implementing realistic flight-test scenarios and the greater flexibility afforded with a mobile platform would not be realized.

ENVIRONMENTAL EFFECTS:

Methodology

To assess the significance of any impact, a list of activities necessary to accomplish the Proposed Action was developed. The affected environment at all applicable locations was then described. Next, those activities with the potential for environmental consequences were identified. The degree of analysis of proposed activities is proportionate to their potential to cause environmental impacts.

Nine broad areas of environmental consideration were considered to provide a context for understanding the potential effects of the Proposed Action and to provide a basis for assessing the severity of potential impacts. These areas included air quality, airspace, biological resources, geology and soils, hazardous materials and waste, health and safety, noise, transportation and infrastructure, and water resources. The areas were analyzed as applicable for each proposed location or activity.

Conclusions of the analyses were made for each of the areas of environmental consideration based on the application of the described methodology. Within each resource summary, only those activities for which a potential environmental concern was determined are described.

Impacts from Missile Test Events

No significant impacts to geology and soils, health and safety, transportation and infrastructure, or water resources would occur from missile test events in the Western Range, PMRF, USAKA/RTS, or the BOA. No significant impacts would result from hazardous materials or hazardous waste used or produced as a result of the proposed action. Applicable regulations and operating procedures would be followed when handling hazardous materials and waste.

Fueling procedures for non-pre-fueled liquid propellant missiles could impact air quality if an accidental release were to occur during fueling operations. The low likelihood of such a release and the implementation of approved emergency response plans would limit the potential for impact to air quality. Analyses indicated that launch emissions would not exceed Federal annual air quality (de minimis) limits. Launches of missiles would not add any new stationary emissions sources to the ranges; therefore, new permits or changes to existing air permits would not be required. In addition, dispersion in the open ocean is considered good due to prevailing trade winds and lack of topographic features that inhibit dispersion.

Launch preparations would follow standard evacuation procedures within the active warning area, which would marginally reduce the amount of navigable airspace. Missile launch firing areas would be selected so that trajectories would be clear of established oceanic air routes or areas of known surface or air activity. Missile launches would take place in existing restricted airspace or warning areas. Airspace would be evacuated within the launch hazard areas and commercial flights would be rerouted to avoid the cleared airspace. Missile launches occurring in the open ocean would be located far enough off land that they would not be expected to interfere with existing airfield or airport arrival and departure traffic flows. Test event sponsors would ensure coordination with the appropriate organizations, such as the International Civil Aviation Organization through the Federal Aviation Administration (FAA), to issue International Notices to Airmen, locate ships with radar capable of monitoring the airspace, contact all commercial airlines and civil and private airports, and monitor appropriate radio frequencies to minimize potential safety impacts.

Noise resulting from the launch of missiles is most likely to cause startle responses in wildlife. Potential non-acoustic effects to biological resources include physical impact by falling debris, entanglement in debris, and contact with or ingestion of debris or hazardous materials. The impact of a missile with the ocean surface could impart injuries to marine mammals at close range. However injury to marine mammals by direct impact or shock wave would be extremely remote (less than 0.0006 marine mammals exposed per year).

Personnel would be located under the hardened deck of the MLP where they would be protected from noise generated during launches. Personnel on the tow vessel would be moved to a safe distance and would be protected from noise generated during launch. Personnel exposed to loud noises would be required to wear hearing protection. Missiles could generate a sonic boom however they would not affect the immediate area around the launch site.

Impacts from Sensor Test Events

Impacts to air quality would be limited to exhaust emissions produced by generators on the MLP and would not be significant. No significant impacts to airspace, geology and soils, hazardous materials and hazardous waste, noise, transportation and infrastructure, or water resources would occur from sensor test events in the Western Range, PMRF, USAKA/RTS, or the BOA.

Potential impacts to wildlife in the near shore environment of the ranges would include seabirds and shorebirds, including migratory species, striking the antennas, telescopes and shelters or becoming disoriented due to high intensity lighting at night. Action would be taken to increase visibility of antennas, telescopes, and other structures to birds. High intensity lighting would be used only during test

events and low intensity lighting would be used whenever possible to reduce the likelihood that birds would become disoriented. Use of sensors onboard the MLP would not impact marine mammals and pelagic fish. Operational activities taking place in the open ocean would occur several hundred kilometers from any landmass, therefore there would be no impacts on near shore vegetation due to use of sensors on the MLP. No electromagnetic radiation (EMR) impacts to wildlife would be expected. The main beam produced by the sensor would be in motion, making it extremely unlikely that a bird would remain within the most intense area of the beam for any considerable length of time.

Operation of mobile sensor systems onboard the MLP would not present a significant health and safety hazard. EMR hazard zones would be established within radar tracking space and near emitter equipment. A visual survey of the area would be conducted to verify that all personnel are outside the hazard zone prior to setup. There would be no exposure hazard expected from the operation of telemetry and optical systems equipment.

Mare Island

There would be no changes required to Mare Island to support docking, servicing, or maintaining the MLP. In addition, any impacts resulting from generator use onboard the MLP would not be different than vessels currently using the port, thus no significant impacts are expected from the use of the MLP at Mare Island. Radars on the MLP would radiate at the home port for system testing, calibration, and tracking of satellites. With the implementation of software controls and other operating parameters, there would be no radiation hazard area on the shore at the home port. Thus, no impacts are expected to the home port from using radars on the MLP.

Cumulative Impacts

Because the proposed activities would take place in the open ocean, no major differences are expected to the cumulative impacts between ranges. There are no other known activities in the near shore environment or BOA that would contribute to cumulative impacts in the open ocean, therefore this cumulative impact analysis focuses on the cumulative impacts of up to four test events per year. Proposed test events from the MLP in conjunction with other existing or planned activities would not be expected to produce cumulative impacts.

Cumulative Impacts from Missile Test Events

Missile launches are short-term, discrete events, allowing time between launches for emissions to be dispersed. Thus, no cumulative impacts would be expected for air quality. Because the volume of air traffic using the open ocean environment is

within structured airspace with scheduling procedures in place for jet routes and warning and control areas, there would be no cumulative impacts to airspace.

Use of spill prevention, containment, and control measures would prevent or minimize impacts to biological resources from spills of propellants. Noise impacts may elicit behavioral disturbance responses in wildlife; however, the addition of at most four missile launches per year would have no cumulative effects on biological resources. No cumulative impacts to geology and soils, hazardous materials and hazardous waste, health and safety, transportation and infrastructure or water resources would result from the proposed action.

Cumulative Impacts from Sensor Test Events

In instances where two radars are used together, for example if the Mk-74 is given a vector to track a target by another radar, such as the TPS-X, no additional impacts would be expected since Mk-74 support equipment would be powered by the generators on the MLP and would not require the addition of supplemental generators. The EA considered the impacts of operating sensors singularly or in groups from the MLP. Power requirements for each sensor are discussed in the EA and may be modified by the test event sponsor based on the specific mission proposed. Therefore, the impacts from using two sensors on the MLP would be similar to those outlined below.

Sensor operating areas would be restricted to minimize impacts to aircraft operations. Standards developed by the FAA and DoD, which limit EMR interference to aircraft, would preclude the potential for cumulative impacts to airspace. EMR hazard zones and safety procedures would be established to provide safety to personnel aboard the MLP, and therefore there would be no cumulative impacts to health and safety.

No cumulative impacts to air quality, biological resources, geology and soils, noise, transportation and infrastructure or water resources would result from the proposed action. No cumulative impacts would result from hazardous materials or hazardous waste used or produced as a result of the proposed action. Operational noises would be limited to the generator used on the MLP and would not be different from current marine vessels; no cumulative noise impacts would be expected.

CONCLUSION: An analysis of the proposed action has concluded that there are no significant short-term or long-term effects to the environment or surrounding populations. After careful and thorough consideration of the facts herein, the undersigned finds that the proposed Federal action is consistent with existing national environmental policies and objectives set forth in Section 101(a) of NEPA and that it will not significantly affect the quality of the human

environment or otherwise include any condition requiring consultation pursuant to Section 102 (2) (c) of NEPA. Therefore, an EIS for the proposed action is not required.

DEADLINE FOR RECEIPT OF WRITTEN COMMENTS: June 7, 2004.

POINT OF CONTACT: Submit written comments or requests for a copy of the MLP EA to:

Missile Defense Agency
TER, Attn: Mr. Crate J. Spears
7100 Defense Pentagon
Washington, D.C. 20301-7100

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APPROVED:

_____ DATE: _____

MARK D. SHACKELFORD
Brigadier General, USAF
Deputy for Test and Assessment